

DATE: June 6, 2006

FILE REF: *PIM Comments 2*

FROM: Bob Lopez, AM/7

SUBJECT: Draft Compilation - Comments on CAIR, RACT and BART received in response to Public Information Meetings held March 29, April 5 and April 6.

The Bureau of Air Management developed materials regarding three stationary source emission control programs required by EPA to address mandatory Clean Air Act elements. The control programs include the Clean Air Interstate Regulation (CAIR), a NO_x Reasonably Available Control Technology (NO_x RACT) program, and a Best Available Retrofit Technology (BART) program. These programs address pollutant reductions from the larger point sources that contribute to regional ozone, fine particle pollution and visibility impairment (regional haze).

Staff involved in the rules development presented the background information to stakeholders via three public meeting held in late March and early April. Those meetings occurred in Wausau, Manitowoc and Milwaukee. Supporting materials from the meetings are available at:

<http://dnr.wi.gov/org/aw/air/hot/8hrozonestd/pubmeetings.htm> .

As part of the outreach effort, we invited comment on the specific program approaches presented, technical issues of concern and more general associated issues involving these programs and their interrelationship including potential overlap regarding NO_x and/or SO₂ control requirements for certain electric generating units.

We received comments on CAIR, RACT and BART preliminary proposals from the following parties:

1. Alliant Energy
2. American Wind Energy Association (AWEA)
3. Calpine Corporation
4. Dairyland Power Cooperative
5. Manitowoc Public Utilities (MPU)
6. SC Johnson & Son, Inc.
7. Thilmany Paper
8. Wisconsin Division of State Facilities (DOA)
9. WE Energies
10. Wisconsin Manufacturers and Commerce (WMC)
11. Wisconsin Paper Council (WPC)
12. Wisconsin Utilities Association (WUA)

A: CAIR PROGRAM COMMENTS

Timing of CAIR

1. Wisconsin utilities, their customers and investors need to know as soon as possible exactly what state [CAIR SIP] rules will require utilities to do so they can continue planning how to comply with them. Further delays only cost electric customers and shareowners more money.
2. Express a need to have final rules [CAIR SIP] ready for legislative review in time to meet this year's September 1 rule review deadline.

3. Because Option 1 addresses CAIR only [as a standalone program], not RACT and BART for electric generating units, it would continue to create great uncertainty for utility planning [until the RACT and BART programs are finalized.].
4. The compliance dates for CAIR [and CAMR] are fixed, and the longer the rules are delayed, the shorter the compliance schedule for meeting the new rules. Utilities must comply with CAIR by January 2009 and CAMR by January 2010. Overly compressed compliance schedules lead to compromises, resulting in higher control costs, increased utility rates, greater reliability risks and potential delays in actual emission reductions.
5. DNR's CAIR add-on proposals merely serves to delay the development of CAIR rules.
6. The commenter urge DNR to advance a CAIR rule consistent with EPA's requirements as soon as possible to avoid further unnecessary delays.

Stringency of CAIR proposal

7. The Department proposed [CAIR model] rule "alterations", which amount to more stringent and/or more complicated provisions than those contained in USEPA's model rule.
8. Option 2 goes well beyond USEPA's guidance and would lead to impacts even greater than those predicted to meet the EGU-2 level in the Lake Michigan Air Director's Consortium (LADCo) white paper.
9. WUA asserts that Option 2 would lead to electricity rate increases of more than 14% reduced annual state economic output of more than \$580 million to \$1.12 billion and job losses of more than 5,300 to 8,000.
10. The alterations proposed by the Department as part of "Option 1" increase the annual stringency of the CAIR rule, reducing emission allocations to 85-90% [of the model allocation level?]
11. Retiring the Compliance Supplement Pool, which was designed to reward early reduction and ease hardship situations, further increases the stringency of the rule by an additional 12% during the first year of the program, 2009.
12. The proposed federal [EPA model] rule alterations add complexity to rule implementation, without any environmental benefit.
13. Both DNR's CAIR Option 1 and Option 2 exceed Clean Air Act Requirements.
14. CAIR Options 1 and 2 would inflict serious economic damage to Wisconsin's economy.
15. The commenter supports approach that a CAIR Program adopted by the state would not include industrial sources.

Alternative proposal to Option 1

16. The Department should consider an option [Option 3 noted] that mirrors the USEPA CAIR model trading rule, including the allocation strategy and USEPA's position that CAIR equals RACT and BART.
17. The Department should consider using the CAIR FIP as a template to expedite rule drafting.
18. Option 3 was proposed by one of the commenters. It was endorsed by a number of the other commenters.

	WDNR Option 1	WUA Option 3
CAIR=RACT; CAIR=BART	Not a CAIR question	
Allocation basis – existing sources	Electrical output	Heat input
Data used for baseline	Average of 3 years	Average of highest 3 years over a 5 year period
Frequency of redistribution and length of allocations	Every 3 years	Every 5 years

Fuel weighting	No fuel weighting	Fuel weighting 1.0 Coal 0.6 Oil 0.4 other fuel
New Unit Set-Aside	Phase I: 5% Phase II: 3%	Phase I: 5% Phase II: 5%
New RE/EE Set-Aside	Phase I: 3% Phase II: 5%	No Set-Aside
Clean Coal Projects	Preference in new unit set-aside	No preference
Oversubscription to set-aside	Preference in new unit set-aside for clean coal projects; pro-rata reduction	Pro-rata reduction
Undersubscription	Banked for future use in the set-aside	Redistributed to the main allocation pool
Treatment of CHP	Boilers and Turbines treated the same	Different treatment of Boilers and Turbines
Compliance Supplement Pool	Retired from use	Allocated based on early reductions or extreme hardship

19. Encourages the WDNR to adopt rules that mirror the USEPA CAIR and CAMR model rules. It is their opinion that this option provides the simplest approach that meets the federal requirements and assures timely submittal of the CAIR state implementation plan (SIP) by the September 2006 deadline and CAMR SIP by the November 2006 deadline to USEPA for approval.

Comments supporting Option 1

20. Properly structured NO_x allocation mechanisms at the state level can help encourage states to develop efficient and low-emitting energy resources, reward energy efficiency and meet air quality attainment goals.
21. States need to consider alternative allocation formulas that differ significantly from the example [EPA model] rule proposed in EPA's CAIR regulation because the model rule allocations send several negative signals regarding treatment of the electric power sector in the context of clean air goals and the consequential impacts on electric power markets.
22. The commenter strongly supports DNR Option 1 approach for implementation of CAIR in Wisconsin and that it represents appropriate alternate processes, provided for by EPA's rule, to address alternate processes for distributing NO_x emission allowances.
23. The commenter feels Option 1 approach promotes clean and efficient power generation through concepts such as fuel neutral and output based allocations, updated allocations, and common baseline treatment among other elements.
24. Allocations of allowances should be updated periodically to provide more equivalent treatment and to acknowledge the higher typical efficiencies of upgraded facilities and to be responsive to changing energy markets.
25. Believes that allocation baselines should be periodically updated.
26. The commenter provides extended support and rationale for Option 1's three year cycle baseline and reallocation cycle.
27. The commenter recommends the use of a 3-year averaging format similar to what is being done for the renewable energy program calculated on an annual basis.
28. The commenter supports that allocations be made on the basis of gross generator output with an adjustment for cogeneration operations. Generator output is normally metered and quality data is readily available for the allocation program.

Modeling and CAIR

29. There is an erroneous assumption being made [by state and federal planners] that Wisconsin utilities will simply rely on purchasing emission credits available via the federal trading market in order to comply with CAIR [and CAMR], instead of adding emission controls on Wisconsin units. This fallacy is even embedded in the current (LADCo) air modeling, despite an agreement reached nearly a year ago to correct this modeling input error. As the utilities have explained, it is unreasonable for them to rely exclusively on a trading program as a responsible compliance strategy. There is simply too much risk in using trading as the basis for a compliance plan for meeting emission reduction requirements of this magnitude.

Cost of CAIR Controls

30. The commenter expects that like the NO_x SIP Call that affected most states east of Wisconsin, costs for emission control equipment will escalate as compliance deadlines approach.
31. The commenter feels current schedules would indicate that there is no room for delays due to rule uncertainty, as our emissions planning process is now at the level of plant-specific and even generating unit-specific decision-making. Furthermore, Wisconsin utilities do not have the market presence compared with other utilities operating in the eastern half of the United States. This can put us at a disadvantage when negotiating pricing and schedules for our projects, and further underscores the need for the WDNR to move forward as expeditiously as possible.
32. Regarding CAIR for utilities, attainment must be reached at the least possible cost.

Set-Asides

33. If the Wisconsin DNR chooses to incorporate renewable energy through a set-aside approach, the commenter would like to recommend the following elements to ensure that the set-aside program provides a clear incentive for development.
34. The commenter suggested Strategic Design Elements for a Renewable Energy Set-aside:
- Set-aside size can accommodate desired renewable energy growth
 - Allocation rate is standard
 - Allocation of allowances is on a long-term basis
 - Process is defined for under- or oversubscribed set-aside.
 - Renewable energy units eligible for set-aside allowances are clearly defined by type of technology, date of operation, and size of project.
 - Small renewable projects can be aggregated and apply for allowances[.]
35. Under the CAIR model rule, new renewable energy generating units can be easily incorporated as a new source in the CAIR and allocated allowances directly, similar to new emitting sources.
36. The commenter suggests streamlining of a 5%-10% new source set-aside to ensure more equitable access to sufficient allowances for new sources and supports the basic Option 1 approach.
37. The commenter supports a renewable energy set-aside pool.

Integration of BART and RACT requirements within CAIR

38. The commenter urges DNR to only integrate the BART and RACT requirements within CAIR (following Option 2) in a way that does not result in an additional compliance burden for sources otherwise subject only to CAIR.

Fuel Neutral Allocation Structure

39. The commenter expresses strong preference and rationale for fuel-neutral allocation structure.
40. The commenter believes the fastest and most efficient way for Wisconsin to encourage low-emitting power generation facilities and energy efficiency is to adopt an allocation method that is

based on electric output rather than heat input/fuel consumption and urges DNR to avoid allocation mechanisms that encourage continued inefficient use of fuel in power generation.

Treatment of Combined Heat and Power Units

41. The commenter recommends that DNR include the thermal energy from combines heat and power facilities in the total output calculation used for allocation of allowances under an output-based allocation system.
42. The allocation method for cogeneration units would need to include the electrical equivalent of the steam sales if a generator output is used for the allocations as proposed.

Level of Allocation

43. The commenter supports the distribution of allocations by plant.

Lag Period for Allocation

44. The commenter recommends that the averaging period lag in order that you know what your allocation will be before the year begins.

Insufficient Information Presented at Public Meetings

45. DNR presentations to the April 6 Public Meeting provide insufficient information for meaningful comment or review.

Specific Comments on Sources rather than rule structure:

Available for review upon request.

B: Summary of Comments related to Reasonably Available Control Technology (RACT)

RACT Control Level:

46. RACT determination and cost-effectiveness should account for recent equipment installations cost.
47. SCR is not feasible on CFB boilers and therefore CFBs should consider separately for boilers > 250 emission limit.
48. SNCR is not commonly employed on stoker boilers and therefore stokers should be considered as a separate category for boilers < 250 emission limit.
49. The high end of RACT applicability should be a maximum \$1,300 per ton control cost. Otherwise RACT in Wisconsin will cost more than RACT in other states. This commenter believes that NR 428 meets RACT.

Monitoring Requirements:

50. Should allow other monitoring options than CEMs [Part 75 systems]. CEMs are expensive and multiple units may require more than one monitoring system. Suggest that the rule allow for compliance assurance monitoring techniques including record keeping, maintenance procedures, non-certified monitoring, predictive emission monitoring (such as a surrogate emission), stack emission testing and CEM's.
51. Allow continued use of common stack monitor system for multiple units.
52. CO monitoring is generally useful to boiler operation, however, RACT should not require Part 60 CO monitoring which can be expensive and difficult.

Trading:

53. One commenter supported facility averaging or trading between units as part of RACT. Facility-wide trading should be allowed but should not require Part 75 monitoring.

Specific Comments on Sources rather than rule structure:

Available for review upon request.

General RACT Issues:

54. Define source specifically as a unit. This clarifies issues resulting from installations of multiple units with a common stack.
55. Supports allowing for case-by-case alternative to [default] unit-level RACT emission limits.
56. Several utility comments suggest that DNR determine that the CAIR program will substitute for any RACT requirement that might apply to a CAIR-affected unit.
57. RACT should only apply on sources within the nonattainment area.
58. RACT should not be applied to the basic nonattainment counties or to a lower than 100 ton threshold in Moderate areas by virtue of an attainment date extension past 2009.

Summary of comments related to BART (Best Available Retrofit Technology)

BART Program-Specific Comments:

59. Several utility comments suggest that DNR determine that the CAIR program will substitute for any BART determination and controls installation requirement that might apply to a CAIR-affected unit.
60. Two comments suggest that CAIR does not exempt utilities from additional controls that are shown to be needed to meet reasonable progress goals as required by the regional haze regulation.
61. One commenter feels the agency is taking a reasonable approach to BART, as it applies to industrial sources with the exception of the proposed approach regarding maximum potential emissions as utilized for subject-to-BART modeling.
62. One industrial source commenter asserted that the regional haze regulation has the potential to seriously erode its ability to compete with smaller facilities or other competitors not affected by this regulation. The BART rule should not be more burdensome than what is applied elsewhere in the United States and in particular within Region 5 states. Another similar comment urged DNR to closely consider the broad economic criteria that are specified in applicable EPA guidelines. The commenter said that in assessing the cost of BART compliance imposed on a source, DNR must consider the degree to which the proposed control equipment would help improve visibility in whatever Class I area is at issue. Further, the EPA guidelines require evaluating the cost effectiveness of control technologies in the context of any unique region, industry or other special circumstance which might present broader economic consequences associated with controls.
63. Two comments recommend that the Department use “maximum 24 hour actual emission rates observed during the most recent 3 or 5 years period” for the modeling used to determine the visibility impacts of BART-eligible sources and that the maximum actual emission rates can be estimated by using either CEM data and/or either site-specific or literature emission factors and fuel throughput data. The Department approach, using allowable emission rates, overstates the visibility impact of the BART-eligible sources on Class I areas.
64. One comment notes that initial feedback from the Department indicates that actual emissions would be allowed, but that the use of site-specific emissions test data would not be allowed and any source requesting the use of actual emissions data would be required to accept an emission limitation at the maximum actual emission rate. These limits on the use of actual emissions – as provided in EPA guidelines and reflected in the modeling protocols of at least two regional planning organizations – are unacceptable. The commenter advised that the way to address sources having future emissions above the 2002-2004 maximum actual level, is through the

regional haze reasonable progress requirements, not through the BART requirement. The commenter stated further that:

In some cases, the use of maximum actual emissions, as recommended by EPA and used by other states, could cause sources to drop below the subject-to-BART threshold and out of the BART regulation. In this case, the Department's proposed approach would force a source to take a restrictive emission limitation, even though the source would not have a significant impact on visibility in any Class I area. We suspect that similar sources in other states would not find themselves in this position. We will attempt to verify our suspicion with other states.

65. One comment supports the individualized impact assessment of BART-eligible sources on visibility impairment rather than considering all BART-eligible sources as subject to BART.
66. One commenter would like to see the Department provide a CALPUFF modeling protocol document to the potentially impacted facilities including all data and other inputs used as well as all the assumptions and justifications for those assumptions.
67. A commenter stated that facility-wide trading could be beneficial for companies complying with BART, providing such a trading option did not require Part 75 monitoring and that monitoring was only required for the emission units participating in the "bubble." Another commenter verbally asked that the BART-rule should provide the facility-wide trading not just for NO_x but also for SO₂.
68. Regarding pollutants to be addressed by the BART rule, there was one comment in support of not including ammonia and volatile organic compounds.
69. One commenter stated that the Department should provide information on its proposal for meeting reasonable [visibility improvement] progress at the same time that it is providing information about other control program plans.
70. One commenter identified one of its units as a possible BART-eligible source.

More General SIP Development and Attainment Assessment Comments:

71. One commenter is confident that the state can demonstrate attainment of the 8-hour ambient air quality standard for ozone with the emission reductions required through CAIR and NO_x RACT for major industrial sources in the non-attainment areas. The state's air monitoring data indicates that the area very nearly attains the standard already, without the benefit of the emission reductions required through CAIR. This "Weight of Evidence" needs to be considered seriously in the state's approach to an 8-hour ozone attainment plan.
72. One commenter believes that implementation of its existing emission reduction plan, along with state and regional implementation of CAIR plus other mobile source programs, will result in 8-hour ozone attainment for Southeast Wisconsin. Since the LADCo modeling is ongoing at this time, and there are discussions of pending modeling improvements, we think it is premature to proceed with requirements beyond CAIR.
73. One commenter feels proposals go beyond [level] needed to comply with ozone and other federal standards and are inconsistent with WI statutes, the CAA and various EPA guidance documents...in part because agency ignoring "weight-of-evidence" gap-filling potential between modeled attainment and recent monitoring data [that could suggest attainment close at hand]. The association asserts that current monitoring trends suggest attainment will be reached without additional effort beyond CAIR and other mandated attainment plan measures.
74. One commenter feels agency staff continue to assert the need for costly and unnecessary mandates when asserting that CAIR in combination with NO_x RACT will lead to timely air quality attainment and that these aggregate [stationary source regulation] proposals do not seem like [the] "reasonable" strategy for ozone attainment SIP development suggested earlier by DNR management overtures.

75. One commenter feels DNR is still withholding details on how it would address controls necessary to go beyond this set of measures in order to address the CAA RACM requirements directed at attainment. However, DNR is discussing statewide RACM prematurely and in a potentially debilitating fashion for WI industry- especially the paper industry.
76. One commenter believes RACM only applies in non-attainment areas as implied by 172(c)(1). Must reject measures if they do not advance the potential attainment year.
77. The major Wisconsin utilities that depend on coal generation facilities feel that CAIR = BART and RACT by virtue of EPA's CAIR program preamble and guidance and the preamble discussions related to EPA's Phase 2 Implementation Rule for Ozone.
78. Several comments suggest that the [regional] air quality model [for projections of future ozone, PM-2.5 and regional haze levels] needs to be refined because it does not seem to comport with the most recent air quality monitoring trends.